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(54) **SULFUR POISONING RESISTANT NO_x**
OCCLUDING MATERIAL, AND EXHAUST GAS
PURIFYING CATALYST AND EMISSION
CONTROL SYSTEM USING THIS

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a sulfur poisoning resistant NO_x occluding material hardly poisoned by sulfur and capable of suppressing a reduction in NO_x absorbing and releasing action by laminating, on a fire resisting inorganic carrier, an inner layer and outer layer containing specified components, respectively, in a prescribed weight ratio, and using a noble metal component as occasion demands.

SOLUTION: An inner layer and a surface layer are

successively laminated on a fire resisting inorganic carrier. The inner layer contains an element M whose generating free energy changing value (ΔG) of $dMp(SO_4)_q$ is -350 kJ/mol or less in a reaction represented by the reaction expression: $aO_2 + bSO_2 + cMxOy \rightarrow dMp(SO_4)_q$ (wherein M represents one element selected from alkali metal and others, $MxOy$ represents the oxide of the M, $Mp(SO_4)_q$ represents a sulfate of the M, (a)-(d) each represent coefficients, and (q) represent the quantity satisfying the valency of the M). The surface layer contains the element M having ΔG larger than -350 kJ/mol . Further, the weight ratio of the inner layer to the surface layer is set to 1:3-3:1.

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